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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,215	01/02/2004	So-hye Kim	1793.1148	6657

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EXAMINER	
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ART UNIT	PAPER NUMBER
2625	

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09/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/750,215

Applicant(s)

KIM ET AL.

Examiner

Richard Z. Zhu

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,8,22 and 24 is/are pending in the application.
- 4a) Of the above claim(s) 3-7,9-21,23,25 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8,22 and 24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Acknowledgement

1. Acknowledgement is made of applicant's amendment made on 08/07/2007. Applicant's submission filed has been entered and made of record. The examiner notes that the applicant had provisionally elects Claims 1-2, 8, 22 and 24 with traverse.

Response to Applicant's Provisional Election

2. The applicant's arguments with respect to the restriction set forth in the previous application had been duly considered, however, the examiner respectfully disagree with the position of the applicant.

35 USC 121 set forth three criteria in which, if met, the commissioner may require the application to be restricted to one of the inventions. The examiner, who is acting on behave of the commissioner had determine that the three criteria had been met and that a restriction is proper for at least the following reasons.

The claimed and disclosed inventions are distinct because each of the restricted species represent distinct inventions of its own merit as evidenced by the distinct aspects set forth in the applicant's disclosure. Contrary to applicant's argument, the rationale set forth in the restriction requirement is reflected within the examiner's description of each species at the beginning of the office action and that the rationale clearly revealed that each aspect of the inventions differ in terms of at least operation and effect. For example, the first species of the inventions required executing printing process after a determination on the basis of whether the page is to be commercially printed or multiple-printed whereas the second species of the inventions required executing printing process on the basis of a calculated

amount that exceeds a predetermined reference data amount; clearly, the operation of determinations and the resultant print execution or effect are distinct from one another. Such distinctness in operations and effects, therefore rationale for restriction, are clearly demonstrated by the examiner in the beginning of the previous office action.

Furthermore, the summary of the invention, as required by 37 CFR 1.73 and MPEP 608.01 (d), is a brief summary of the detailed disclosure as well as the claimed invention that set out the exact nature, operation, and purpose of the inventions. Therefore, the summary can be properly relied upon under MPEP 809.02 (a) to set forth the reasons why the species are distinct.

The fact that the examiner uses applicant's own summary as rationale and a generic office restriction practice template does not negate the reality that there are a plurality of distinct inventions that are mutually exclusive in characteristics, as evidenced by the distinct aspects of each species nor does it weaken the rationale for restriction.

The claimed and disclosed inventions are unobvious of each other because the disclosed distinct aspects of each species constitute separate inventions that are not obvious of one another. For example, the first species of the inventions required executing printing process after a determination on the basis of whether the page is to be commercially printed or multiple-printed whereas the second species of the inventions required executing printing process on the basis of a calculated amount that exceeds a predetermined reference data amount. Thus, the two aspects of determinations are unobvious of each other. Such unobviousness in operations and effects are clearly demonstrated by the rationale set forth in the beginning of the previous office action.

Furthermore, the distinctness and unobviousness of each invention is evidenced by the fact that the applicant had submitted three separate foreign priority patent applications. At the very least, this points to at least three separately patentable inventions. The fact that the applicant saw it fit to combine at least three separately patentable inventions into a single US patent application gives the examiner full discretion to apply restriction to the maximum extent allow by 35 USC 101, 35 USC 121, 37 CFR 1.141, and 37 CFR 1.146 in the interest compact prosecution and quality examination.

The claimed and disclosed inventions represents an undue burden on the examiner because the examiner has to give considerations and perform searches to at least six different species of the invention with distinct operational doctrines and resultant effects. The extensiveness of examiner's search only further evidenced the serious burden on the examiner because the applicant is entitled to the same extensiveness of search for each invention whereas the existence of six inventions deprives the applicant such entitlement without a serious burden on the examiner. Thus, there exist a serious burden on the examiner to conform to the quality standard of patent examining functions as require by the office if the restriction requirement is not applied.

The fact that the examiner had review all of the claimed inventions, reviewed all four information disclosure statements, and the number of references cited has no relevance whatsoever in regard to requirements set forth in restriction practices. In addition, the examiner had to use three different prior art to anticipate three groups of claims is a further evidence of an undue burden on the examiner to examine an application that should've been filed in at least three different applications.

Furthermore, the unpersuasiveness of applicant's arguments and the apparent lack of through review of the primary references pertaining to each of the independent and dependent claims within the amendment impressed upon the examiner that there exists a serious burden on the applicant to properly prosecute the application with due quality.

The applicant is recommended to focus prosecution to the third species of invention as examination so far had shown that the disclosed invention of third species appears to be a patentable invention. The restriction is currently required partially because the examiner believes significant amendment is necessary to place an application with respect to the third species in condition for allowance and a quality examination of third species can not perform if the examiner is asked to consider other disclosed species, which is clearly unpatentable in view of prior art.

Finally, in the interest of compact prosecution and quality patent examination, **this restriction requirement is made final.**

Response to Applicant's Amendment

3. In light of the restriction requirement, Claims 1-2, 8, 22 and 24 are pending whereas remaining claims are withdrawn from consideration. Therefore, arguments directed to Claims 1-2, 8, 22 and 24 should be addressed.
4. The examiner has noted that Claims 1-2, 8, and 24 are original claims and independent Claim 22 had been amended. The arguments with respect to claims 1, 8 and 24 had been considered and they are not persuasive. The arguments with respect to Claim 2 are persuasive and the objection and rejection are withdrawn. However, a new rejection under 35 USC 103 (a) is entered.

With respect to applicant's arguments directed to Claims 1, 8, and 22, *Gabbe* clearly discloses in Col 5, Row 57 – Col 6, Row 20, specifically, Col 6 Rows 14-20, that the user can specify a page that is a subset of the plurality of pages is to be commercially printed or is to be multiple-printed. In *Gabbe's* example, the user specifies that the first page and the last page is to be commercially printed on a separate page whereas the intervening pages are to be multiple-printed. Therefore, there exist a determination procedure within the processor of *Gabbe's* apparatus to determine which page is to be commercially printed and which page is to be multiple printed whereas these pages are subset of a plurality of pages. As such, rejections made under *Gabbe* are maintained.

With respect to applicant's argument to Claim 24, an applicant can sustain the burden of rejection, please refer to MPEP 2112, "Requirements of Rejection Based on Inherency; Burden of Proof" which cites "to establish inherency, the extrinsic evidence must made clear that the missing descriptive matter is necessarily present in the thing described in the reference and that it would be so recognized by persons of ordinary skill". Fig 7 properly demonstrates such extrinsic evidence of inherency; if the device is enabled to recognize the sequence or the order of the pages being printed, then the device must be able to associate a sequence number with each page that is the subset of a plurality of the pages being printed. Furthermore the examiner being a casual user of printers recognizes the well-known fact that printers can print page numbers on each page. Being able to use examiner's own knowledge in the art with respect to this limitation, it is believed that the examiner had made a proper case of inherency. As such, the burden of proof is shifted to the applicant to provide objective evidence that there exist a multiple-up printer that can not print page sequence on a page. See

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MPEP 2112, Section V, "ONCE A REFERENCE TEACHING PRODUCT APPEARING TO BE SUBSTANTIALLY IDENTICAL IS MADE THE BASIS OF A REJECTION, AND THE EXAMINER PRESENTS EVIDENCE OR REASONING TENDING TO SHOW INHERENCY, THE BURDEN SHIFTS TO THE APPLICANT TO SHOW AN UNOBVIOUS DIFFERENCE".

As such, **this rejection is made final.**

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 8, 22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by ***Gabbe et al. (US 4928252 A)***.

Regarding Claim 1 and 8, Gabbe discloses printer (Fig 1 and see Col 4, Rows 34-44) implemented by a computer (Fig 1, Computer System 10 and see Col 4, Row 40.

Computer system is properly interpreted to have a computer program on a computer readable medium that is used to execute the functions set forth within the computer program) using a multiple pages per side function (Fig 7, 9 pages on a single sheet), by which a document comprising a plurality of pages is printed using the N-up function of printing multiple pages on a sheet of paper (Fig 7, 9 pages on a single sheet) comprising:

Setting pages to be multiple printed out of the plurality of pages (Col 5, Rows 57-Col 6, Row 21, the user set forth the parameter in which printing is to be executed

whereas the computer will determine in Col 3, Rows 18-46 the proper setup of printing in accordance to user-defined parameters).

Determining whether a page to be printed is one of the pages set to be multiple printed (Col 6, Rows 14-21).

Processing data of the page to be printed as data to be multiple printed in response to determining that the page to be printed is one of the pages set to be multiple printed (Col 5, Rows 35-64 discloses how the device goes about executing user-defined parameters whereas Col 5, Row 65- Col 6, Row 20 disclose that the user defines a certain pages out of a plurality of pages are to be commercially printed and a certain pages out of a plurality of pages are to be multiple printed).

Processing data of the page to be printed as data to be commercially printed in response to determining that the page to be printed is not one of the pages set to be multiple printed (Col 5, Rows 35-64 discloses how the device goes about executing user-defined parameters whereas Col 6, Row 17 - Row 20 disclose that the user defines a certain pages out of a plurality of pages are to be commercially printed. As such, a determination is made by the program to separately processing the pages to be commercially printed from the pages to be multiple-up printed).

Printing a plurality of pages according to the processed data (Col 5, Rows 35-64).

Regarding Claim 22, Gabbe discloses a printing method (Fig 1 and see Col 4, Rows 34-44, printer implementing the following method) using a multiple pages per side (N-up) function (Fig 7, 9 pages on a single sheet) by which a document comprising a plurality of

pages is printed using the N-up function of printing multiple pages on a sheet of paper (**Fig 7, 9 pages on a single sheet**), the method comprising:

processing data of a first page (**Col 6, Row 15-20, all pages other than the first and last pages are specified to be multiple printed**), of the plurality of pages, to be printed as data to be multiple printed in response to determining that the page to be printed is set to be multiple printed (**Col 5, Rows 35-64 discloses how the device goes about executing user-defined parameters whereas Col 5, Row 65- Col 6, Row 20 disclose that the user defines a certain pages out of a plurality of pages are to be commercially printed and a certain pages out of a plurality of pages are to be multiple printed**);

processing data of a second page (**Col 6, Row 15-20, the first and last pages are specified to be commercially printed**), of the plurality of pages, to be printed as data to be commercially printed in response to determining that the page to be printed is not set to be multiple printed (**Col 5, Rows 35-64 discloses how the device goes about executing user-defined parameters whereas Col 5, Row 65- Col 6, Row 20 disclose that the user defines a certain pages out of a plurality of pages are to be commercially printed and a certain pages out of a plurality of pages are to be multiple printed**) and

printing the plurality of pages based respective processed page data (**Col 5, Rows 35-64**).

Regarding Claim 24, see Examiner's rationale as set forth in response to applicant's argument.

6. Claim 2 is rejected under 35 USC 103 (a) as being unpatentable over *Gabbe et al. (US 4928252 A)* in view of *Kohri et al. (US 5959744 A)*.

Regarding Claim 2, *Gabbe* does not disclose setting a page to be multiple-printed on the basis of the amount of data present on the page being set for printing.

Kohri discloses the setting pages to be multiple printed out of the plurality of pages comprises setting a page determined to have simple contents (Col 2, Rows 55-67, measuring data amount of one page, Col 3, Rows 25-30 comparison with a pre-determined amount to determine if it have simple contents, Col 5, Rows 61-68, multiple up printing if the page is of simple content, that is less than the predetermined amount of data) and forms to be multiple printed.

Gabbe and *Kohri* are combination because both are in the field of multiple-up printing.

It would've been obvious to one of ordinary skill in the art at the time of the invention to enhance the determination ability of the device of *Gabbe* with the determination capability of *Kohri* so as to determine how many pages are to be printed on a single page whereas the motivation would've been to "provide a recording apparatus which records image data without wastefully consuming recording sheets" (*Kohri*, Col 1, Rows 22-24).

Therefore it would've been obvious to combine *Gabbe* and *Kohri* to obtain the invention set forth in Claim 2.

Conclusion


THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

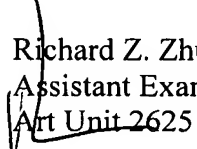
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is 571-272-7440 and Richard Z. Zhu whose telephone number is 571-270-1587. The examiners can normally be reached on M-F, 8:00 - 4:30.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RZ²
09/24/2007


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